

# Newsletter

School of Dentistry  
Showa University

January 2016

Volume 8

## Table of Contents

- Challenges associated with a super-aging society ...1*
- Medical support team for cleft lip and plate in the Republic of Madagascar ...1*
- Showa University Digital Laboratory ...2*
- Research Experience in University of Western Ontario, Canada ...2*
- Lecture for international exchange programs ...2*
- Featuring a Showa University Alumnus Oversea ...3*
- Advanced clinical trainihg at NYUCD ...3*
- Research Introductory letter ...4*
- Oral Presentation at EuroPerio8, 2015 at UK ...4*
- Introduction of Foreign Research Fellow ...5*
- With this honorable achievement ...5*
- International Exchange Center ...6*
- Special days in JCC ...6*
- Exchange Agreements with Foreign School of Dentistry ...7*



## Challenges associated with a super-aging society

by Professor Takashi Miyazaki: Dean, School of Dentistry, Showa University



Dentistry and dental services have contributed to increasing the quality of life of patients by offering tailored services such as high quality prostheses. Of course, I feel proud of

conventional dental services and feel that these services will continue to be necessary in the future.

However, faced with a super-aging society in Japan, dental services are expected to transition from conventional tooth- and missing tooth-related services, such as conservative and prosthetic dental services, to services taking a team approach with general medicine to save and protect patients' lives by managing sources of oral infection and maintaining oral functions such as ingesting food and swallowing safely.

Over the past decade, Showa University Dental School has introduced a new curriculum, taking up the challenge of educating a new type of dentist to serve patients by preserving healthy aging in collaboration with a variety of medical professionals in both hospital and communities.

In addition, with governmental support, we have been conducting new projects to develop self-learning information technology tools appropriate for aging patients. These projects have been carried out in collaboration with other dental schools and local dental associations.

## Medical support team for cleft lip and plate in the Republic of Madagascar

by Koki Takamatsu: 5th-year Dentistry student

I am Koki Takamatsu, a sixth grade undergraduate student of Showa University School of Dentistry. From November 8th to 22nd in 2014, I was part of Showa University's medical support team. Showa University has been dispatching its own medical support team to the Republic of Madagascar since 2011. There is no special department there. Showa University team provides professional medical care for cleft lip and palate, and to date has performed 100 surgeries.

For those two weeks, we stayed at the Clinic Ave Maria in Antsirabe, which is the third largest city in Madagascar. Our team comprised 15 members including doctors, nurses, staffs and students. During our stay we worked as medical assistants and went to dental clinics and pharmacies in Antsirabe to do some field work. Our main activities were to assist the operations, to provide medical care, and to support the patients and their families. These were very

precious experiences for me. And I recognized there were some problems in that country. There are not enough post-operative treatments and not enough information sharing between doctors and patients. On the other hand, health awareness of patient's families about medical conditions and treatment is high.



I noticed my thinking had changed. Before joining this project I thought our role was to teach knowledge and technique. But, after joining I began to think it is more important to "educate" than to teach. To educate is not just teaching, but it means telling people how

to live by themselves. And I recognized the importance of "team medical care" such as nutrition counseling and mental care.

In the future, children who have received surgery will need dental treatments such as orthodontic treatment as they grow up. I want to become a dentist who can explain to them the importance of dental treatment when that time comes and I hope to be able to join this project again.

Thank you all who supported me.



## Showa University Digital Laboratory

by Professor Kazuyoshi Baba, Yasuhiro Ono : Department of Prosthodontics



Digital technologies have been available in our university. The technical development of digital scanning/impression in the mouth has made a rapid and huge progress especially in digital prosthodontics area. Our latest equipments bring us not only the efficiency in dental laboratory work, but also learning experiences to students. Digital prosthodontics is expected to become part of core technology in the future dentistry.



## Research Experience in University of Western Ontario, Canada

by Dai Suzuki: Department of Biochemistry

I initiated my research about the mechanistic function of the small GTPase Rac1 during limb development as a post-graduate student with Dr. Ryutaro Kamijo and Dr. Atsushi Yamada, in the Department of Biochemistry, School of Dentistry, Showa University. After receiving Ph.D., I got an opportunity to extend my studies as a postdoctoral fellow under the supervision by Dr. Frank Beier, a specialist in developmental biology, especially in cartilage, in University of Western Ontario (UWO). UWO is a publicly funded research university and is divided into 12 faculties and schools with over 25,000 undergraduate and graduate students.



Dr. Beier holds the posts of Canada Research Chair in Musculoskeletal Health and Director of Collaborative Graduate Program in Developmental Biology. His laboratory is divided into about 20 members including undergraduate and graduate students, postdoctoral fellows, research associates, and technicians. My project was to gain further insight into the role of Rac1 in skeletal development. We have employed constitutively active Rac1 overexpressing mice in limbs or cartilage and analyzed them. As a result, we found that tight regulation of Rac1 activity is necessary for normal cartilage development. I reported these results at the Gordon

Research Conference.

Now, I work for Showa University as an assistant professor and am studying in detail the molecular mechanisms involved Rac1 function in cartilage development based on our previous results. I gained not only new insights and knowledge about current methods of research in Canada but I also learned something about the differences between Japanese and Canadian education and research systems.



## Lecture for international exchange programs

by Professor Hirotaka Kuwata : Department of Oral Microbiology and Immunology



Dr. Shah has been providing great leadership to UBC's international relations program for students from numerous universities which include Showa university. We invited Dr. Shah to let our students experience live connections with international leading character within "today's rapidly globalizing world". We hope this experience become a trigger.

### Featuring a Showa University Alumnus Oversea

by *Maki Narita: Narita Family Dental Torrance & Orange County, U.S.A.  
UCLA School of Dentistry Section of Periodontic*

**M**aki Narita, D.D.S., M.S. is a periodontist and a specialist in dental implants licensed to practice in California and Washington, U.S.A. and Japan. After graduating from Showa University School of Dentistry and obtaining the Japanese dental license in 1996, she pursued her clinical dentistry studies at the University of Southern California (U.S.C.) School of Dentistry in Los Angeles, California. In 1998, she received her D.D.S. (Doctor of Dental Surgery) from the U.S.C. School of Dentistry and her California and Washington dental licenses. While working in private clinical settings, Dr. Narita also served as a clinical instructor for the anterior fixed restoration course at



U.S.C. School of Dentistry. In 2001, Dr. Maki and her sister Dr. Mie Narita established Narita Family Dental, which to this date successfully operates with offices in Torrance and Costa Mesa, California.

**I**n 1997, Dr. Narita founded Global Harmony Inc., an interpretation and translation services company specializing in consecutive and simultaneous translation services for both English and Japanese speaking dentists at universities, conventions, and meetings, as well as logistical services to dental seminars for Japanese dentists.

**A**fter being a general dentist for 12 years, Dr. Narita decided to pursue periodontics/dental implants specialty. In 2013, she successfully

completed the Postgraduate Periodontics Program at the University of California San Francisco (UCSF) and additionally obtained a Masters of Science Degree in Orofacial Sciences. Since then, she has been appointed as lecturer to teach 3rd and 4th year dental students at the University of California Los Angeles (UCLA) School of Dentistry Section of Periodontics. Dr. Narita has also been appointed as lecturer at her alma mater, Showa University School of Dentistry Department of Orthodontics in 2014.

**D**r. Narita is a founder of "speakdentalenglish.com", an educational blog for Japanese dental professionals and introduces conversational English used in a typical American dental practice.

### Research Introductory letter

by *Sawako Takeuchi: Department of Restorative Sciences and Biomaterials, Boston University,  
Henry M. Goldman School of Dental Medicine, USA*

**I** am Sawako Takeuchi. After graduating from dental school, I continued on as a post-graduate student at Showa University with my mentor, Professor Sato. I was fortunate enough to participate in many presentations, publish numerous articles, and work with the GC Corporation in Tokyo, Japan, where I developed and patented a removable keeper system for magnetic attachments on overdenture abutments. After moving to Boston, I published "Novel Removable Keeper System for Magnetic Attachments on Overdenture Abutments" with Dr. Nathanson at BU. Additionally, I have started a new research project surveying geriatric education with both Dr. Sato and Dr. Nathanson. I was also taking a PhD



level class on biomaterials and oral medicine with DMD students of Dr. Giordano and Dr. Chou at BU. Furthermore, I observed treatments at a nursing home and a private office with geriatric dentists, such as Dr. Calabrese and Dr. Rawal.

**I**n my years of patient care at various clinics at Showa University in Japan and at Boston University as a research scholar, I have developed a personal dentistry style that encourages patients to practice preventive care in addition to viewing their oral health as an essential aspect of their overall health. I hope to continue to work with geriatric patients by supporting them in enjoying their lives as I care for their removable and fixed prosthodontics.

From June 1st, in 2015, I'll take a 2 year AEGD program at Rochester University. During this time, I'll continue my research project with my colleagues and would like to contribute to new generations of dental students and the department of Geriatric Dentistry at Showa University.

**M**any thanks and appreciation to all my colleagues, especially Dr. Nathanson and Dr. Sato.





## Advanced clinical training at NYUCD

by *Fuyuki Nose: the Ashman Department of Periodontology and Implant Dentistry,  
New York University College of Dentistry (NYUCD)*

I am at present a clinical fellow at the Ashman Department of Periodontology and Implant Dentistry, New York University College of Dentistry (NYUCD).

I received my DDS from Showa University School of Dentistry in 2008 where I also earned a Ph.D. degree in Periodontology in 2013.

Following my PhD, I pursued a two-year full time Advanced Program for International Dentists in Implant Dentistry at NYUCD. The program encompasses both the surgical and prosthodontic aspects of modern implant dentistry. As a resident, I had to provide comprehensive treatment plans for all patients under my care, and I was responsible for performing the surgeries and delivering the prostheses to the highest standard. Surgically, I experienced diverse types of



techniques to manage different groups of defects, including pneumatizing sinuses, atrophic maxilla and severely resorbed ridges. Prosthodontically, I managed patients with an array of needs, from simple unit, complex full arch to aesthetic cases. In addition

to honing my clinical skills, I was also encouraged to participate in many international conferences and publish in peer review journals.

On completion of the program, I was given the opportunity to be a clinical fellow. In addition to patient care, I am also tasked to lecture and supervise other residents.

Perhaps the best part of the program is the "International" aspect of it. It provided a friendly competitive environment where I was motivated everyday to be the best that I can be by

my fellow residents who have come from all corners of the world. Not only are they talented clinicians, but I have no doubt they will also be the leaders of the future and it is humbling to be a part of the group.

It has been a very fulfilling two years, both personally and professionally. Aside from the vast knowledge I've acquired and clinical skills gained, it is the friendship I forged here that I will treasure forever. I owe my deepest gratitude to the NYUCD staff members, my family, parents, and all of my friends. Thank you all very much.



## Oral Presentation at EuroPerio8, 2015 at UK

by *Yumi Moriya: Department of Periodontology*

I made an oral presentation at the EuroPerio8 in London, UK from June 3-6, 2015. The format of the meeting was oral presentation, poster discussion, and poster presentation (90 people, 103 people, and 1231 people, respectively). Out of a total of 1424 people, only 90 people (2 of whom were Japanese) were selected to be an oral presenter at the meeting.

The title of my presentation was "Comparison between gingival crevicular fluids (GCF) from deciduous and permanent teeth using iTRAQ quantitative proteomics". I examined the GCF of children patients in Showa University Dental Hospital Pediatric



Dentistry. I compared the protein profiles of the GCF between deciduous and permanent teeth, using iTRAQ quantitative proteomics to explore the biochemical characteristics of the gingival tissue. I found that the protein profiles of the GCF between

deciduous and permanent teeth were different. Among them, Myeloperoxidase, one type of antibacterial protein tended to be more abundant in the GCF of deciduous teeth than in the GCF of permanent teeth.

EuroPerio8 was very large meeting, breaking all attendance records with a total of 9700 attendees from 116 different countries. I felt very fortunate

to make my first presentation at such a large meeting, especially as an oral presenter. That was a great experience for me. Finally, I would like to thank my supervisor Prof. Matsuo Yamamoto, Prof. Mitsuko Inoue, Dr. Michael W. Myers, Dr. Yoko Koide, Dr. Tomomi Sugiyama, and other staff of the lab.



## Introduction of Foreign Research Fellow

Showa university is committed to international students. This year, four members joined our team from all parts of the world. It's very stimulating to communicate with people outside yourself. We will continue to find new comers for next year.

**by Dr. Mohamed Adel (Dental school-Suez canal university, Egypt)**



I'm Mohamed Adel, 33 years old and I come from Egypt. I used to be an assistant lecturer in the dental school-Suez Canal University. Japanese culture is one of the most impressive cultures for me, so being here was one of my dreams. At the same time I'm very happy to have such an opportunity to do my Phd research in one of the most famous universities, not only in Japan but also all over the world. Also

I was very lucky to work under the supervision of Professor Koutaro Maki and Dr Tetsutato Yamaguchi who care about every single detail in my research, giving valuable advice and continuous support all the

time. Their support also extends to my personal life, trying to make my stay in Japan easier and that's what really makes me feel that I'm still in my home country. My research topic is in genetics, studying the craniofacial morphology of the Egyptian population and studying their DNA as well. Many thanks to all of the staff of Showa University, and special thanks to the staff of the international exchange center and student affairs office who do an outstanding job with all the students. My sincere appreciation also goes out to all my supervisors and all the coworkers in the orthodontic department who make the surrounding atmosphere so inspiring and so family like. I'm truly blessed to have been given this opportunity to be one of this team's members. I've learned a lot from them and I am still learning. Happy to get the chance to be in Showa University.

**Dr. Dianne Angeli Austria**  
**School of Dent., University**  
**of the Philippines, Philippine**



**Dr. Reena Rodriguez**  
**Bachelor of Dental Surgery**  
**(B.D.S) from Saveetha Dental**  
**College, Chennai ,India.**



**Dr. Zhou Jun**  
**Tianjin Medical University,**  
**China**



## With this honorable achievement

*by Noriko Maruyama: Department of Orthodontic*

It is an incredible privilege for me to win the Kamijo Award. The purpose of the Kamijo Award is to honor the most outstanding graduate student at Showa University on the basis of their scholarly achievements during the course work.

My research topic is the bone toughening mechanism assessed by in situ dynamic mechanical analysis under the supervision of Prof. Maki and Prof. Miyazaki. Also, I would also like to express my sincere appreciation to Dr. Shibata for the detailed instructions he gave every day. My PhD dissertation, published in Biomaterials, has been nominated as a leading opinion paper, and only a few leading opinion papers out of thousands of papers are named annually. Biomaterials



ranks at the top of international journals in this field, with impact factors of 8.557 and 9.305 for 5 years. Leading opinion papers, which provide evidence-based scientific opinions on topical and important issues in biomaterials science, are commissioned by the Editor-in-Chief.

My greatest memory is the challenge of making a presentation at an international conference. During the conference, I had a chance to exchange ideas with many overseas researchers.

I will continue to draw on my experience in graduate school life for the future and I aim to do my utmost to achieve outstanding results.

## International Exchange Center

by Takeshi Miura: International Exchange Center

At the International Exchange Center of Showa University, we support the foreign students and research fellows who want to study at Showa University. There are schools in our University: Medicine, Dentistry, Pharmacy and Nursing and Rehabilitation Sciences.

Starting from April 2014, we have welcomed 50 foreign students and research fellows from India, Indonesia, China, Taiwan, Bangladesh, Thailand, Philippine, UK, Mongolia, Egypt, Canada, Madagascar, and USA. In this academic year, we have offered scholarships to 16 research fellows, and offered our dormitory to 42 research fellows and foreign students.

Our dormitory was replaced with a new one 2 years ago. These dormitories have a "common space" area (shower, toilet, and kitchen) that the foreign research fellows share with their roommate. They have enjoyed experiencing not only Japanese culture, but also another country's culture from their roommate.

In May, we had a welcome party for the research fellows (cf. the photograph).

During Summer and Autumn, we visited Asakusa & Ryogoku with some foreign students and students of Showa University and we also had an international exchange party with them.



We wanted to create a chance for the foreign students to interact with our students from all of the departments, and also provide an opportunity to better experience Japanese culture.

In addition, we help our students and doctors travel abroad for study and research, and also help our university conclude agreements with overseas

universities. It is very important that there is mutual interchange between Showa University and our sister schools. We want to help our students and doctors travel abroad, and help foreign research fellows and foreign students visit Showa University even more!

Number of international guest scholars at the School of Dentistry in 2014.

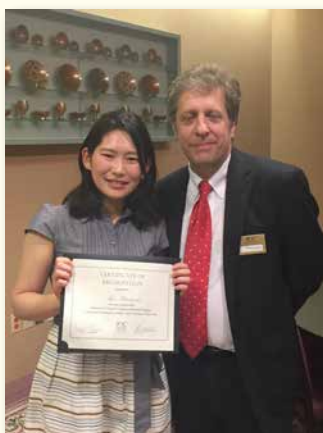
Country	Number
India	2
Bangladesh	1
Mongolia	1

## Special days in JCC

### Aiko Mitsuhashi: (3th-year Dentistry student)

I had a wonderful experience at JCC from 20 July to 7 August. I participated in the program to improve my English skills but JCC gave me a lot more than I expected. The members who participated were two Japanese students including myself, three Tunisian students and Mexicans who already had their own jobs. The total was around 20 people. My classmates had brilliant backgrounds. For example; English teachers, a systems engineer, expert in computers and a student who studies biotechnology. We could discuss the differences between our countries, cultures, values and the fields we specialize in. Spending three weeks with them gave me great opportunities to think about many things that I was not able to imagine just being in Japan.

I was in the advanced class. The class required us to speak in



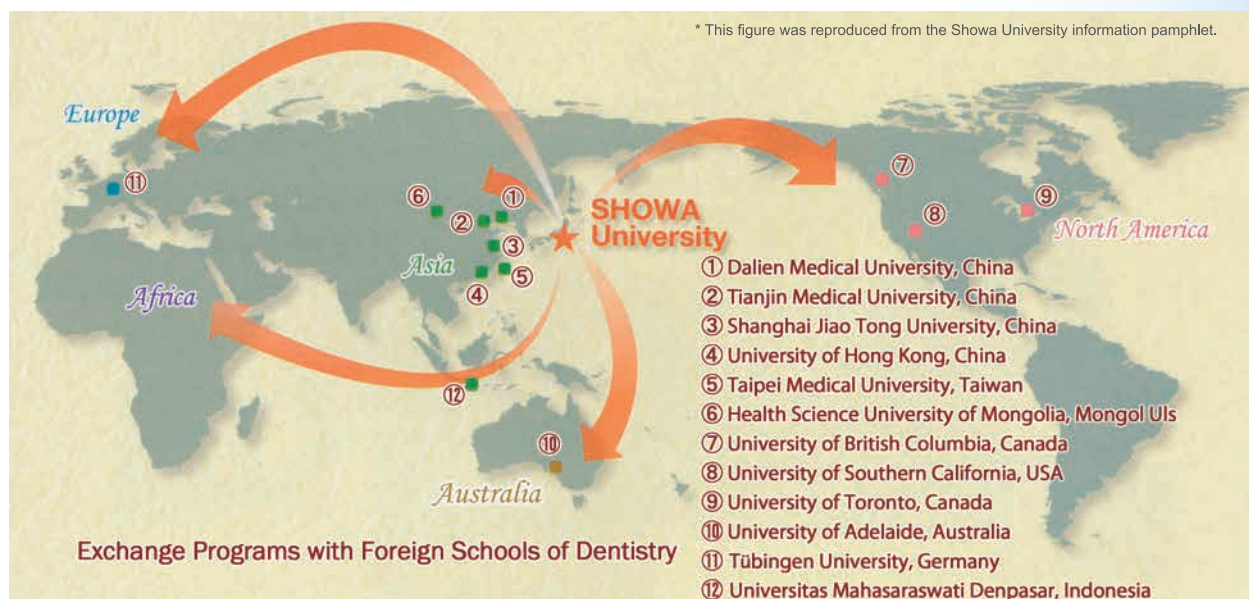
our own words, which was a skill I never had a chance to acquire in Japan. Each lesson gave me opportunities to create sentences with my own words and my teacher gave me advice every time. I think my ability to create sentences grew dramatically at the end of this program. And so did my speaking skills, since my classmates listened to my English patiently and explained to me the words I didn't understand. The conversation was always in English because that was the only common language we could understand! The best way to improve our English skills is just to speak in English without shame and not to be afraid of making mistakes.

But what's more, by participating in this program I became friends with people I never expected to be friends with, which will add special value to my future life!

Thanks to the great members, my teachers who supported me to participate in the program and my family who sent me off. I spent a special time in JCC.



## Exchange Agreements with Foreign School of Dentistry

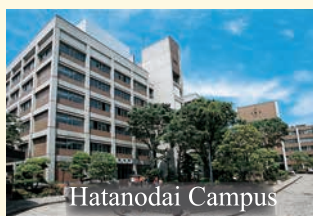


## Ph.D. Program: Application Information

Showa University Graduate School of Dentistry offers interdisciplinary training programs in basic and clinical dental sciences, leading to a Ph.D. degree. Our Ph.D. program, for enrollment in either September 2016 or April 2017, accepts applications from international students. For further information, please contact Showa University International Exchange Center (e-mail: [int-exc@ofc.showa-u.ac.jp](mailto:int-exc@ofc.showa-u.ac.jp)). <http://www.showa-u.ac.jp/en/index.html>

Cover Photograph: "Bon Festival dance" in Summer Festival of Showa University.

## Inquiries



### SCHOOL OF DENTISTRY, SHOWA UNIVERSITY

1-5-8 Hatanodai, Shinagawa-ku, Tokyo 142-8555, JAPAN

Telephone: +81-(3)-3784-8000

Websites:

Showa University <http://www.showa-u.ac.jp/en/>

School of Dentistry [http://www.showa-u.ac.jp/en/researches/research\\_school\\_dentistry.html](http://www.showa-u.ac.jp/en/researches/research_school_dentistry.html)



## Editorial Board

### Dean, School of Dentistry:

**Takashi Miyazaki**

*Professor, D.D.S., Ph.D.*

*Department of Conservative Dentistry,  
Division of Biomaterials and Engineering*

### Chief Editor:

**Hiroataka Kuwata**

*Professor, D.D.S., Ph.D.*

*Department of Oral Microbiology  
and Immunology*

**Naoko Nonaka**

*D.D.S., Ph.D.*

*Department of Oral Anatomy  
and Developmental Biology*

**Nobuhiro Sakai**

*D.D.S., Ph.D.*

*Department of Pharmacology*

**Reiko Yorozya**

*D.D.S., Ph.D.*

*Department of Orthodontics*

**Yo Shibata**

*D.D.S., Ph.D.*

*Department of Conservative Dentistry,  
Division of Biomaterials and Engineering*

**Yukiko Matsuda**

*D.D.S., Ph.D.*

*Department of Oral Diagnostic Sciences,  
Division of Radiology*

**Yoko Koide**

*D.D.S., Ph.D.*

*Department of Periodontology*

**Dai Suzuki**

*D.D.S., Ph.D.*

*Department of Biochemistry*

**Yasuhiro Ono**

*D.D.S., Ph.D.*

*Department of Prosthodontics*